

IN THE ABSTRACT

Please delete the abstract on file and replace it with the enclosed ABSTRACT OF THE DISCLOSURE.

IN THE DRAWINGS

Enclosed herewith please find replacement Fig. 33, which has been amended to delete R1 and BR.

REMARKS

Claims 5 and 6 are pending and rejected in the present application.

Applicant respectfully submits that with this response, the specification has been amended to more particularly point out and distinctly describe the subject matter which Applicant regards as the invention. Applicant respectfully submits that none of the amendments to the specification constitute new matter.

Claims 5 and 6 are rejected under 35 U.S.C. § 102(a) as being anticipated by "Fabrication of Submicrometer 3D Periodic Structures Composed of Si/SiO<sub>2</sub>," by Kawakami.

Applicant respectfully submits that the Kawakami reference is not prior art. The present application has a priority date of March 29, 1997. The Kawakami reference has a publication date of July 1997. Due to the fact that the present application has a priority date earlier than the Kawakami reference's publication

date, the reference is not prior art and therefore Applicant respectfully requests the Examiner to withdraw the § 102(a) rejection to Claims 5 and 6.

Claim 5 is rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. 5,600,483 to Fan et al. The Examiner states that because the resulting structure appears to be the same as claimed by Applicant, it is obvious, if not inherent, that the same structure claimed by Applicant in Claim 5 is present in Fan.

Applicant respectfully submits that Claim 5 is not anticipated or obvious over the Fan reference. Claim 5 of the present application recites a structure with a layer of SiO<sub>2</sub> that has been sputter etched wherein the Fan reference does not describe having a structure with a layer of SiO<sub>2</sub> that has been sputter etched. Therefore, the Fan reference does not anticipate Claim 5 of the present application.

The Examiner states that the structure in Claim 5 appears to be the same as the structure in the Fan reference. Applicant respectfully disagrees with the Examiner's statement. As shown in Fig. 1 of the Fan reference, the structure has vertical holes throughout the entire structure. Fig. 1 of the present application appears to have hexagonal shaped holes on the surface of the structure; however, the holes on the surface are there to illustrate that each multiple layer has two-dimensional

unevenness and not meant to show vertical holes through the whole structure. Due to the presence of the vertical holes in the Fan reference, the band gap in the vertical direction with the substrate is narrow. Due to the fact that the present invention  
5 does not include vertical holes throughout the structure, the essential multiple layered structure can be maintained and the band gap in the vertical direction of the surface is very wide. A wide band gap in the vertical direction of the structure is important for the implementation of an element such as a  
10 wavelength filter or a deflecting element for vertical incidence of light into the surface of the structure. Therefore, the structure in the present invention is different than the structure in the Fan reference because of the absence of the vertical holes in the structure.

15 Applicant respectfully submits that the present invention is not anticipated or obvious by the Fan reference, and therefore, Applicant respectfully requests the Examiner to withdraw the rejection to Claim 5.

20 Applicant respectfully requests the Examiner to withdraw the rejections in the present application and forward a notice of allowability to the undersigned.



If the Examiner has any questions or comments that would speed prosecution of this case, the Examiner is invited to call the undersigned at 219/485-6001.

Respectfully submitted,

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RJK/jrw8

Encs: Clean Specification  
Paragraphs  
Replacement Abstract of  
the Disclosure  
Replacement Fig. 33  
Petition for Extension  
of Time  
Check No. 5408 (\$445)  
Return Postcard

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Hon. Commissioner of Patents and Trademarks, Washington, D.C. 20231, on: August 6, 2001

Randall J. Knuth, Regis. No. 34,644  
Name of Registered Representative

Signature  
August 6, 2001  
Date